



**ENGINEERING OPERATIONS COMMITTEE
MEETING MINUTES
JUNE 2, 2000 - 10:00 A.M.
EXECUTIVE CONFERENCE ROOM**

Present:	C. T. Maki	G. D. Taylor	J. D. Culp
	C. Roberts	P. F. Miller	T. E. Davies
	J. W. Reincke	T. Fort	S. Bower
Guests:	M. Bott	D. L. Smiley	J. T. LaVoy
	E. Savas	C. Libiran	L. Galehouse
	C. Bleech		

OLD BUSINESS

1. Approval of the Minutes of the May 3, 2000, Meeting - C. T. Maki

Minutes of the May 3, 2000, meeting were approved as written.

2. Jointed Reinforced Concrete Pavement (JRCP) vs Jointed Plain Concrete Pavement (JPCP) - S. Bower

The field tour with industry to build consensus concerning JPCP was held on May 11, 2000. In 1997, EOC approved up to 350 lane miles of JPCP for construction and evaluation. We are nearing that limit at this time. It was decided that future JPCP projects exceeding the 350 lane mile limit will be considered by EOC on a case-by-case basis.

3. GM Barrier - P. F. Miller/T. Davies

Thom Davies reported a region consensus that the proposed barrier replacement policy for 3R projects should apply to reconstruction projects as well. This means the replacement of existing GM barrier would be based on an evaluation of its existing condition and accident history. A review of accident data for two known locations with existing GM barriers showed no indication of barrier related problems. With the age of the remaining GM barriers on the highway system being 24 years or more, it is likely the condition of the barriers may often warrant replacement.

ACTION: The condition of existing GM barrier will be evaluated, as well as the associated accident record. Replacement and upgrade of GM barrier will be based on this criteria for both 3R and 4R projects.

Design will issue a guideline to establish this policy. It will also be added to the Design Manual.

4. M-39 Demo Project Update - S. Bower

Negotiations with industry are continuing. Tabled until the July meeting.

NEW BUSINESS**1. Pre-Treating Cracks in Existing Pavements Prior to Bituminous Overlay - L. Galehouse**

The Michigan Asphalt Paving Association (MAPA) believes that pre-treating existing cracks before placing a bituminous overlay may increase the performance and longevity of the pavement. MAPA has proposed test sections on three to six bituminous overlay projects in the 2000 CPM Program. The projects will be monitored under an existing consultant contract to evaluate preventative maintenance treatments.

ACTION: Test sections will be instituted on three to six bituminous overlay projects in 2000.

The expenditure of maintenance funds to establish the test sections was approved. The total cost for applying the crack filling material is estimated at \$100,000 to \$150,000.

The monitoring will be conducted by B. T. Bellner and Associates.

2. Approval of Revisions to the Department's *Guidelines for Signing on State Trunklines* - M. Bott

These guidelines were first adopted in 1988 by the State Transportation Commission and have been updated for the first time to reflect new signing programs and current practices. The document was reviewed by the regions, Real Estate Division, Maintenance Division, and Transportation Planning.

ACTION: EOC approves the guidelines and recommends the document be sent to the State Transportation Commission for their approval prior to being published and released. Mark Bott will work with Doug Novak on the submittal process.

3. Bureau of Highway Instructional Memorandum 2000-13, *Revised Procedures Manual for Mix Design Processing* - J. D. Culp

The procedures manual was reviewed and approved by the regions following joint revision by the department and industry.

ACTION: EOC approves the manual and BOH IM 2000-13 will be signed by Tom Maki and Gary Taylor.

4. **Wayne State University Proposal, *A Safe and Efficient Transportation System for the New Millennium - State of Michigan* - J. W. Reincke**

Wayne State University (WSU) proposes establishing a Transportation Research Center (TRC) to conduct research related to transportation infrastructure, operations, and safety. The proposed TRC's mission will be "to address transportation problems related to safety and mobility". The TRC will operate in cooperation with various public and private partners, including AAA, FHWA, the Office of Highway Safety and Planning, local agencies, and MDOT. WSU is requesting an annual budget of \$250,000 per year for five years from MDOT.

ACTION: EOC approves being a public partner for the WSU TRC. Tom Maki indicated funding is available and there is a real need to do traffic related research in the Detroit Metro area. A letter of support and acceptance will be written for Tom Maki's signature. It will indicate our level of support based on our needs and on approved research projects. Research projects and funding will be approved through EOC initially.

5. **Revised Aggregate Wear Index (AWI) Requirement for Bituminous Surface Mixtures - D. L. Smiley**

The following existing AWI requirements apply to aggregates for bituminous surface mixtures:

ADT/Lane	Minimum AWI
100 - 500	220
>500	260

The department is currently conducting a cooperative research study with Michigan Technological University to more accurately correlate the relationship of surface friction and aggregate wear under traffic. The study should validate the proper AWI value for a range of predicted traffic levels.

Until the research study is completed (18 to 24 months), it is recommended that the AWI requirements be established at the following values.

ADT/Lane	Minimum AWI
<100	None
100 - 2000	220
>2000	260

ACTION: EOC approves the recommendation.

6. **Research Summit 2000 - J. W. Reincke**

One of the significant recommendations from the recent process re-engineering for the university research program proposed a "Research Summit 2000" meeting be held October 20, 2000. The meeting will be hosted by the Department of Civil and Environmental Engineering at Michigan State University.

This will be a biennial conference. Its purpose is to focus the research program on the strategic goals of the department and to obtain consensus on high priority research in the areas of bridge/structures, materials, pavements, and traffic/safety.

Attendance at the meeting will include all university partners, project managers, research advisory group members, area experts, research end users and implementation champions. It was pointed out that regional representation and participation will be especially critical and important. This was noted by Bobbi Welke and Jon Reincke during the process re-engineering meetings.

ACTION: EOC approves the "Research Summit 2000" meeting on October 20, 2000.

7. **Pavement Selections - US-131 Reconstruction, CS 41131, JN 33333, and CS 41131, JN 47542 - C. Bleech**

The reconstruction alternates considered were Alternate 1, a flexible bituminous pavement, and Alternate 2, a jointed reinforced concrete pavement.

A life cycle cost analysis was performed and Alternate 2 was approved based on having the lowest Equivalent Uniform Annual Cost. The pavement design and cost analysis for Alternate 2 are as follows:

280 mm	... Jointed Reinforced Conc. Pavt (8 m jt Spacing)(Mainline & Outside Shld'r)
220 mm Jointed Reinforced Concrete Pavement (8 m jt Spacing)(Inside Shoulder)
100 mm Open Graded Drainage Course
100 mm Aggregate Separator (21AA)
150 mm Open Graded Underdrains
300 mm Sand Subbase

Present Value Initial Construction Costs \$486,480/kilometer

Present Value Initial User Costs \$480,867/kilometer

Present Value Maintenance Costs \$107,486/kilometer

Equivalent Uniform Annual Cost \$57,953/kilometer

8. **Tom Fort's Retirement**

This is Tom Fort's last meeting due to his retirement at the end of the month. Many thanks to Tom for his work on this committee as FHWA's representative. Congratulations and best wishes for a happy retirement.

(Signed Copy on File at C&T/Secondary)

Jon W. Reincke, Secretary

Engineering Operations Committee

JWR:kat

cc: EOC Members

Region Engineers

J. R. DeSana

R. J. Risser, Jr. (MCPA)

L. Stornant

T. L. Nelson

R. J. Lippert, Jr.

A. C. Milo (MRBA)

J. Ruszkowski

R. D. Till

D. L. Smiley

J. Becsey (MAPA)

C. Libiran

M. Frierson

M. Nystrom (AUC)

D. Hollingsworth (MCA)

G. J. Bukoski

C. W. Whiteside

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